

REMARKS

As a preliminary matter, although the “Office Action Summary” of the present Office Action indicates that independent claim 16 of the present invention has been rejected, the body of the Office Action does not list any actual grounds of rejection for the claim. The Examiner discusses claim 16 in the Office Action (pages 6-7) only with respect to the same three previously cited prior art references which, at first glance, would imply that the Examiner was merely repeating a previous rejection of this claim. However, the Examiner expressly indicates, on page 7, that Applicants’ previous arguments against these three specific references “are moot in view of the *new* ground(s) of rejection.” (Emphasis added).

No such “new” grounds of rejection appear in the Paper, and therefore the outstanding Office Action is clearly deficient with respect to the rejection of independent claim 16. If the Examiner meant to include a new ground, or grounds, of rejection against claim 16, the Examiner was obligated to clearly list them in writing. If, on the other hand, the Examiner meant to merely repeat the previous rejection of the claim, the Examiner was obligated to answer the meritorious arguments that traversed the previous rejection. Under either scenario, the outstanding Office Action must be vacated and corrected. The corrected Office Action should either indicate that claim 16 is allowed, or else it must state the new grounds in a nonfinal Action. Applicants are not obligated to guess as to what a rejection may or may not be.

Claims 9-14 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Farchmin et al. (U.S. 5,567,042) in view of Takahashi et al. (JP 2000010095) and further in view of Japanese Unexamined Utility Model Application No. H05-59402. Applicants

therefore respectfully traverse this rejection for at least the reasons of record, and as follows. The Utility Model reference fails to modify the Farchmin reference, as asserted by the Examiner, and therefore all of Applicants' previous arguments against the rejection based only upon Farchmin and Takahashi still defeat this asserted *prima facie* case of obviousness.

The Examiner asserts, in the second to last paragraph on page 3 of the outstanding Office Action, that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of the Utility Model [Figs. 1, 2] in the apparatus of Farchmin." A simple comparison of the reflector (2, 12) illustrated in Figs. 1, 2 of the Utility Model reference, with the reflector 26 shown in Figs. 3, 4 of Farchmin, clearly reveals that Farchmin already uses the same configuration for the reflector that is taught by the Utility Model reference. Accordingly, the proposed combination of Farchmin with the Utility Model is merely cumulative. A reflector that would result from the proposed combination would not be substantively different from the reflector already shown by Farchmin. Accordingly, because the Examiner has already implicitly acknowledged that Applicants' previous arguments were sufficient to overcome the previous rejection, the "new" rejection should be withdrawn for at least the same reasons.

Moreover, the outstanding obviousness rejection is further inappropriate because the resulting combination of references requires an additional *modification* to Farchmin that necessarily prevents Farchmin's device from functioning in its intended use. Farchmin teaches a plurality of cold-cathode lamps 28 inside its reflector 26. The Utility Model reference, however, is valid only for a *single* light source 1, and not at all for a plurality of light sources

within a single reflector. The presence of a plurality of tubes, as opposed to a single tube, is highly significant in the present case.

As shown in the examples provided in Amendment D, the light emitted from a single one of Farchmin's lamps 28 may not necessarily reenter the lamp from which the light was emitted. The reflected light will, however, enter one of the other lamps 28. The same results will necessarily occur when the Utility Model reference's configuration is modified (as would be required) to include additional light sources within the single reflector 2 or 12. Wherever such additional light sources could be placed within the Utility Model's reflector, some of the reflected light will necessarily enter one of the other light sources. The only alternative modification would be to *remove* all of Farchmin's lamps 28 except for one single lamp.

To make such a modification to Farchmin, however, will necessarily render the rejection deficient because the present claims require a plurality of tubes. Applicants submit that the proposed "combination" of Farchmin with the Utility Model reference does not actually combine the two references at all, but merely examines each reference separately, in a vacuum. Accordingly, the proposed combination fails to teach all of the limitations of the present invention, and is therefore deficient on its face under the requirements of Section 2143.03 of the MPEP.

The proposed combination of at least Farchmin with the Utility Model reference is further deficient on its face under the requirements of Section 2143.01 of the MPEP. Absent extrinsic evidence on the record, a rejection based on a proposed combination and/or modification of references is required to indicate where the prior art references themselves

teach or suggest the proposed combination and/or modifications. In the present case, however, the record does not indicate a single teaching or suggestion from any prior art reference that would motivate one of ordinary skill in the art to combine and/or modify the references as proposed.

The Examiner expressly asserts that the obviousness of combining the two references is to “enhance light output by making more light come out of the reflector.” The rejection, however, does not cite to any teaching or suggestion from the references themselves to justify this conclusory statement. By definition therefore, the statement reflects only the Examiner’s personal opinion, and not the clear teachings or suggestions in the prior art. Neither art reference actually teaches or suggests that incorporating the configuration of the Utility Model into Farchmin will result in “more light coming out of the reflector.” Although the Examiner is deemed to have skill in this field of art, the Examiner’s personal opinion of what might be obvious may not form the underlying basis to justify the rejection. See In re Lee, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). Instead, an obviousness rejection can only be based upon objective evidence on the record, which evidence must be capable of review and rebuttal. The Examiner’s personal opinion can neither be reviewed, nor rebutted objectively.

As discussed above though, the proposed incorporation of Utility Model’s configuration into Farchmin simply could not result in “more light coming out of the reflector,” because Farchmin already incorporates a nearly identical configuration for the portion of the reflector that is placed immediately behind each lamp 28. By definition therefore, the amount of light coming out of the combined reflector will be the same as that

which would already come out of Farchmin's unmodified reflector 28. Again, the proposed combination fails to consider the necessary interaction of a plurality of lamps in a single reflector, as opposed to the configuration that utilizes only a single lamp. If the Examiner means to modify Farchmin to reduce the number of lamps, the amount of light coming from such a modified device will necessarily be reduced by the presence of fewer light sources, thereby contradicting the Examiner's conclusory statement. Accordingly, the outstanding obviousness rejection of independent claim 9, and its dependent claims 10-12, is further deficient under the express requirements of Section 2143.01, and should be withdrawn for at least these reasons as well.

With respect to independent claim 13 of the present invention, the rejection is further traversed because none of the cited references, whether taken alone or in combination, teach or suggest a second optical waveguide that has both of its two ends face the same end of a first optical waveguide. Applicants do not agree that the Examiner's interpretation of the Utility Model reference is appropriate, because the cited "end" of the waveguide 3 would never actually face a different waveguide from the Takahashi reference) because the Utility Model's light source 1 will always entirely obscure the end from any face of Takahashi's waveguide). Nevertheless, and in the interests of expediting prosecution only, Applicants have further amended the language of claim 13 to avoid even this unreasonable interpretation of the references.

Fig. 8 of the present Specification, for example, illustrates an embodiment of the present invention where a second optical waveguide (36) clearly has 2 ends (not numbered) that both face the optical waveguide 1. The cited face from the Utility Model reference

therefore, cannot read upon this clarified language from claim 13, and the outstanding obviousness rejection of this claim (as well as that against its dependent claim 14) is traversed.

Claim 15 again stands rejected under 35 U.S.C. 103(a) as being unpatentable over Kazuki (JP 10-091079) and Okahira (JP 09-282918), but now further in view of the newly cited Yamazaki reference (GB 2 092 823). Applicants therefore traverse this newly proposed combination of references because none of the references, whether taken alone or in combination, teach or suggest the dispersion of phosphor inside two cylindrical diameters that form a wall of a cold-cathode tube, as in claim 15 of the present invention, as amended.

Applicants submit that the Examiner's reliance upon the Yamazaki reference is initially misplaced. Claim 15 of the present invention, as last amended, featured that phosphor was dispersed between opposing inner and outer diameters that form a wall of the tube. Yamazaki, on the other hand, does not disperse phosphor between the inner and outer diameters of a single wall of a tube, but instead merely places one bulb of an irregular shape (13) within a second cylindrical bulb (12). Although the second bulb 12 could be said to have a diameter, the inner bulb 13 clearly cannot. To possess a "diameter," a structure must have a circular, cylindrical, or spherical configuration. The irregular bulb 13 shown in Yamazaki clearly has none of these features. Accordingly, Yamazaki fails to teach or suggest any inner diameter that could satisfy the limitations of claim 15 of the present invention, as last amended.

Nevertheless, and only for the purposes of expediting prosecution, claim 15 has been further amended herein to redundantly recite that the inner and outer diameters of the tube wall are both cylindrical. Although these features of claim 15 should have already been

clear to one of ordinary skill in the art when considering the entire context of the claim, this redundancy in the claim clearly avoids even the unreasonable interpretation of the Yamazaki reference that appears on the record. Yamazaki fails to show where phosphor is dispersed between any two cylindrical diameters, let alone the inner and outer diameters that form a wall of the tube. Accordingly, for at least these alternative reasons, the rejection of claim 15 should also be withdrawn.

Additionally, new claim 55 has been added to depend from claim 15, and to feature another combination of features from the present invention. New claim 55 should therefore be in condition for allowance for at least the same reasons as claim 15. Entry, consideration on the merits, and allowance of new claim 55 are also respectfully requested.

With respect to independent claim 16 of the present invention, the outstanding Office Action fails to cite to any title of the United States Code under which this claim is allegedly rejected. Although the Examiner's remarks imply that the Examiner meant to reject claim 16 on some unnamed grounds, Applicants can only guess as to what such "new" grounds of rejection were supposed to be. The Examiner's remarks only describe the same three references (Kazuki, Okahira, and Suzawa) that were already of record in the previous rejection. By definition, another rejection based only upon these same three references would not be "new." Therefore, the Examiner was obligated to at least attempt to answer Applicants' arguments against the previous rejection, before repeating the rejection. Because the Examiner has made no attempt to answer those arguments, any implied rejection of claim 16 should be withdrawn for at least those reasons of record.

If the Examiner is unwilling to allow claim 16, the Examiner is required to vacate the outstanding Office Action, and submit a new, nonfinal Office Action that correctly indicates any grounds of rejection of claim 16. The grounds for rejecting claim 16 must take into consideration the arguments against the three previously cited references, if the Examiner intends to continue to rely upon any of these references in the rejection. The Examiner should also first have to consider the following discussion regarding some additional errors that appear in her present remarks regarding these previous references.

First, it is important to note that the Examiner appears to concede that none of the references of record teach the placement of a heating element on the same inner surface of the housing on which is formed the reflector. Instead, the Examiner asserts that the location of the heating element is a mere “obvious variation,” that amounts to nothing more than the simple “rearrangement of parts” that “involves only routine skill in the art,” according to Section 2144.04 of the MPEP. Such assertions, however, represent a clear misreading of Section 2144.04(C).

Section 2144.04(C) only indicates that a rearrangement of parts is an “obvious variation” where the alleged rearrangement “would not have modified the operation of the device.” (Citing Japikse). Section 2144.04(C) also expressly warns the Examiner that the mere fact that a rearrangement of parts is within the skill of a worker in the art “is not by itself sufficient to support a finding of obviousness.” See id. The rule from Chicago Rawhide Mfg. Co. expressly states that “the prior art must provide a motivation or reason for the worker in the art, without the benefit of [the pending] specification, to make the necessary changes in the reference device.” In the present case, however, the rejection entirely fails to cite to any such

teaching or suggestion from any cited reference that would provide this mandatory motivation.

Accordingly, any further potential rejection of claim 16 would be deficient on its face for at least these reasons.

The Examiner's reliance upon Section 2144.04 also fails to consider the clear rule regarding the rearrangement of parts from In re Hubbell, 76 U.S.P.Q. 105 (CCPA 1947). Even if the Examiner were correct that the claimed placement of the heating element in the present invention were nothing more than a mere "rearrangement of parts" (which Applicants do not concede), Hubbell specifically held that even the structural rearrangement of known parts are patentable when the record reflects that the beneficial results of such an arrangement are undisputed, novel, and useful. In the present case, the relationship between the location of the heating element and the reflector is clearly shown on the record to have such undisputed, novel, and useful beneficial results.

The Examiner herself admits that the claimed relationship between the location of the heating element and the reflector is useful by her express statement that putting "the heating element on the same surface as the reflector [would] more efficiently heat the tube." Applicants further note for the record that the Examiner has never challenged the beneficial results of this arrangement in the present invention, and therefore these benefits are undisputed on the record. The novelty of the claimed arrangement is demonstrated by the fact that the Examiner is unable to cite to a single teaching or suggestion *from the references themselves* that actually teaches or suggests the specific arrangement claimed by claim 16. Accordingly, the case law cited in Section 2144.04 not only fails to support the Examiner's reliance upon this section, Section 2144.04 even contradicts the Examiner's determination in this case.

Applicants further point out for the record that the Examiner's proposed "obvious" modifications to the prior art references are again based only upon the Examiner's own conclusory statements of her personal opinion. The remarks in the outstanding Office Action fail to cite to a single teaching or suggestion from the prior art references themselves to support the conclusory statement that "[putting] the heating element on the same surface as the reflector [would] more efficiently heat the tube." By definition, because such an assertion is not based upon any teaching or suggestion from the prior art, it can only be based upon the Examiner's own personal opinion, which is not permitted, or upon Applicants' own Specification, which would be an impermissible use of hindsight. Accordingly, a *prima facie* case of obviousness has not been properly asserted against claim 16, even by implication in the outstanding Office Action.

For all of the foregoing reasons, Applicants submit that this Application, including claims 9-16 and 55, is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

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